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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/682,314	08/17/2001	James Kenneth Aragones	RD-28217	2332

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EXAMINER	
CRAIG, DWIN M	
ART UNIT	**PAPER NUMBER**
2123	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/26/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	09/682,314	ARAGONES ET AL.	
	Examiner	Art Unit	
	Dwin M. Craig	2123	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 October 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-93* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-93* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. In view of the Appeal Brief filed on 10/27/2006, PROSECUTION IS HEREBY REOPENED. New grounds of rejection are set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:

Objections

2. Appellants' Appeal Brief submitted on 10/27/2006 is objected to because each page of the Appeal Brief has the wrong case serial number printed. Specifically the serial number printed on each page of the Appeal Brief is 10/622,063 and instant Application is serial number 09/682,314.

Correction is required.

Response to Arguments

3. Appellants' arguments with respect to claims 1-93 have been considered but are moot in view of the new ground(s) of rejection.

Claim interpretation

4. The term *"ideal"* as it is presently being used in independent claims 1, 9, 15, 18, 19, 22, 30, 36, 39, 40, 46, 54, 60, 63, 64, 70, 78 and 86 is not clearly defined in Applicant specification. More specifically Appellants' specification teaches in the background of the invention, *"Typically, engine baseline models are developed from data gathered from thermodynamic cycle analyses and simulation. First, models of ideal values are created, indexed by variables such as altitude, temperature, power setting, and air speed."* The Examiner has interpreted the term *ideal* to represent any model of data that was preprocessed. U.S. Patent 5,727,128 to Morrison teaches data that has been preprocessed; the Examiner is interpreting the preprocessed data of Morrison to teach *Ideal* data.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out

the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1-93 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,018,069 to Pettigrew in view of U.S. Patent 5,727,128 to Morrison.

5.1 Regarding claim 1, Pettigrew teaches, a system for performing engine baseline modeling, comprising: an engine service database that contains engine data (Col. 4 line 39 "...a ground computer **database**" and Col. 3 lines 60-61, "...with stored standard performance **baselines** representing engines in good condition" teaches the functional equivalent of a engine service database with baseline modeling see also Col. 10 lines 43-67 more specifically "Thermodynamic **models** of the turbine **engine**..."); wherein the engine baseline model relates engine performance variables as a function of engine operating conditions (Col. 3 lines 16-2, "REDD values are a measure of the deviation between accepted engine parameter curves representing the functional relationships between various turbine engine performance parameters and **actual** engine parameter curves...").

However, Pettigrew does not expressly disclose, a preprocessor for processing the *Ideal* data into a predetermined format and an engine baseline-modeling component that builds an engine baseline model from the preprocessed data.

Morrison teaches a preprocessor for processing the engine data into a predetermined format an engine baseline-modeling component that builds an engine baseline model for an ideal engine from the preprocessed data (Col. 2 lines 66-67 and Col. 3 lines 1-8 more specifically, "This **pre-processing** procedure is necessary because measured process data often contains

missing values, noise and unexpected upsets caused by different sources within the process." Which teaches the functional equivalent of preprocessing data for baseline modeling).

Pettigrew and Morrison are analogous art because they are both from the same problem solving area of process modeling.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to have used the data preprocessing method of Morrison with the base line modeling methods of Pettigrew.

The suggestion for doing so would have been the ensure that any data processed during the base line modeling wouldn't have any noise or erroneous data present so that further processing does not generate results that lead to a deterioration of the product being produced using the process, see Morrison Col. 1 lines 43-60 more specifically, "...before the product actually produced by those process begins to deteriorate".

Therefore, it would have been obvious to combine Morrison with Pettigrew to obtain the invention as specified in claims 1-93.

5.2 Regarding claim 2, Pettigrew teaches extracting data from an engine database, (Col. 4 line 39 "...a ground computer **database**" and Col. 3 lines 60-61, "...with stored standard performance **baselines** representing engines in good condition" teaches the functional equivalent of a engine service database with baseline modeling).

However, Pettigrew does not expressly disclose preprocessing data to create *Ideal* data.

Morrison discloses preprocessing data (Col. 3 lines 1-8 more specifically, "This **pre-processing** procedure is necessary because measured process data often contains missing values, noise and unexpected upsets caused by different sources within the process.")

5.3 Regarding claim 3, Pettigrew does not expressly disclose a preprocessor but does teach engine data (Figure 4 # 202).

However, Morrison teaches the preprocessor "scrubbing" the data and making the data "clean" (Col. 3 lines 1-8 more specifically, "This **pre-processing** procedure is necessary because measured process data often contains missing values, **noise** and unexpected upsets caused by different sources within the process.") the Examiner notes that removing *noise* is functionally the same as *scrubbing* or *cleaning* the data.

5.4 Regarding claim 4, Pettigrew does not expressly disclose segmenting the engine data into a plurality of groups but it does teach engine data (Figure 4 # 202).

However, Morrison discloses segmenting data into a plurality of groups (Figure 3, TEMP, PRESSURE, FLOW, etc and the descriptive text, more specifically Col. 7 lines 34-48 the different data files are functionally the same as different groups).

5.5 Regarding claim 5, Pettigrew does not expressly disclose a regression model.

However Morrison teaches a regression model (Figure 5 # 114 and 116 and Col. 5 lines 60-67 and Col. 6 lines 1-9, more specifically, "...the system implements a regression analysis on the set of potential model...").

5.6 Regarding claim 6, Pettigrew teaches baseline modeling of engine data with metrics (Figure 4 and the descriptive text).

However, Pettigrew does not expressly disclose validating the model.

Morrison teaches a method of selecting input variables or a process model, (Col. 5 lines 60-67 and Col. 6 lines 1-9) which is functionally the same a performing a *pre-validation* of variables that are then put into a model, further validation of models is well known in the

simulation/modeling art, see Col. 1 lines 38-50 of U.S. Patent 5,197,127, "Typically simulations are performed to validate analytic models..." thus, it would have been obvious, to an artisan of ordinary skill, at the time of the invention, to have taken the express teachings of Morrison as regards validating the inputs of a model and then derive the express teachings in the instant claims as disclosed.

5.7 Regarding claim 7, Pettigrew does not expressly disclose, having a heuristic component that generates rules for cleaning the preprocessed data.

Morrison teaches a method of selecting input variables or a process model, (Col. 5 lines 60-67 and Col. 6 lines 1-9) and then preprocessing the data (Col. 3 lines 1-8 more specifically, "This pre-processing procedure is necessary because measured process data often contains missing values, noise and unexpected upsets caused by different sources within the process.") An artisan of ordinary skill at the time of the invention would take the preprocessing and filtering of Morrison and it would be obvious to then create a heuristic and a set of rules for cleaning the data as suggested. Further, the use of heuristics that generate rules is well known in the validation of models in the simulation art, see Col. 1 lines 38-50 of U.S. Patent 5,197,127, "Typically simulations are performed to validate analytic models..." and in regards to heuristics and the application of rules see Figure 12 # 42 and more specifically Col. 6 lines 28-41, more specifically "a heuristic process is carried out to apply empirically derived rules to the initial state assignment..."

5.8 Regarding claim 8, Pettigrew teaches a model diagnostics component that evaluates the performance of the engine baseline model (Figure 5 # 251 and Col. 2 lines 19-46 more specifically, "...engine diagnostic data...").

5.9 Regarding claim 9, the rejection of claim 1 substantially meets all of the claimed limitations in independent claim 9 with the exception of the following limitation:

a model diagnostics component that evaluates the performance of the engine baseline model.

Pettigrew teaches a model diagnostics component that evaluates the performance of the engine baseline model (Figure 5 # 251 and Col. 2 lines 19-46 more specifically, "...engine diagnostic data...").

5.10 Regarding claim 10, Pettigrew teaches the functional equivalent of extracting data from and engine service database (Col. 4 line 39 "...a ground computer **database**" and Col. 3 lines 60-61, "...with stored standard performance **baselines** representing engines in good condition" teaches the functional equivalent of a engine service database with baseline modeling).

5.11 Regarding claim 11, see the rejection of claim 3 above.

5.12 Regarding claim 12, see the rejection of claim 4 above.

5.13 Regarding claim 13, see the rejection of claim 6 above.

5.14 Regarding claim 14, see the rejection of claim 7 above.

5.15 Regarding claim 15, the rejection of claim 1 substantially meets all of the claimed limitations in independent claim 9 with the exception of the following limitations:

"...a model diagnostics component that evaluates the performance of the engine baseline model,"

"...builds an engine baseline model for an ideal engine from the preprocessed data using a regression analysis..."

Pettigrew teaches a model diagnostics component that evaluates the performance of the engine baseline model (Figure 5 # 251 and Col. 2 lines 19-46 more specifically, "...engine diagnostic data...").

Pettigrew does not expressly disclose performing a regression analysis.

However Morrison teaches a regression model (Figure 5 # 114 and 116 and Col. 5 lines 60-67 and Col. 6 lines 1-9, more specifically, "...the system implements a **regression analysis** on the set of potential model...").

5.16 Regarding claim 16, see the rejection of claim 6 above.

5.17 Regarding claim 17, see the rejection of claim 7 above.

5.18 Regarding claim 18, Pettigrew teaches a system for performing engine baseline modeling of an aircraft engine (Figure 4 and the descriptive text more specifically reference # 212, 214 & 216 and Col. 1 lines 20-22 "...**aircraft** turbine **engine**..." and Col. 3 lines 55-67 more specifically "...with stored standard performance **baselines** representing **engines** in good condition..."), comprising: an engine service database that contains aircraft engine data; (Col. 4 line 39 "...a ground computer **database**" and Col. 3 lines 60-61, "...with stored standard performance **baselines** representing engines in good condition" and Col. 2 lines 19-46 more specifically "...engine **diagnostic** data...") wherein the method corrects the aircraft engine data to standard conditions derived for an aircraft engine (Col. 3 lines 60-61, "...with stored standard performance **baselines** representing engines in good condition"); an engine baseline modeling component that builds an engine baseline model and a model diagnostics component that evaluates the performance of the of the engine baseline model (Col. 2 lines 19-46 more

specifically "...troubleshoot and diagnoses the turbine engine..." and "...engine **diagnostic** data..." and).

However, Pettigrew does not expressly disclose a preprocessor for processing the aircraft engine data into a predetermined format and creating *Ideal* data and using a regression analysis, wherein the regression analysis relates engine performance variables as a function of engine operating conditions, and the engine baseline modeling component comprising a metric component to validate the engine baseline model.

Morrison substantially teaches or suggests, a preprocessor for processing the aircraft engine data into a predetermined format (Col. 2 lines 66-67 and Col. 3 lines 1-8 more specifically, "This **pre-processing** procedure is necessary because measured process data often contains missing values, noise and unexpected upsets caused by different sources within the process." Which teaches the functional equivalent of preprocessing data for baseline modeling) and using a regression analysis, wherein the regression analysis relates engine performance variables as a function of engine operating conditions (Figure 5 # 114 and 116 and Col. 5 lines 60-67 and Col. 6 lines 1-9, more specifically, "...the system implements a **regression analysis** on the set of potential model..."), and the engine baseline modeling component comprising a metric component to validate the engine baseline model (Morrison teaches a method of selecting input variables or a process model, Col. 5 lines 60-67 and Col. 6 lines 1-9, which is functionally the same a performing a *pre-validation* of variables that are then put into a model, further validation of models is well known in the simulation/modeling art, see Col. 1 lines 38-50 of U.S. Patent 5,197,127, "*Typically* simulations are performed to validate analytic models..." thus, it would have been obvious, to an artisan of ordinary skill, at the time of the invention, to have

taken the express teachings of Morrison as regards validating the inputs of a model and then derive the express teachings in the instant claims as disclosed.)

5.19 Regarding claim 19, see the rejection of claim 1 above.

5.20 Regarding claim 20, see the rejection of claim 6 above.

5.21 Regarding claim 21, see the rejection of claim 3 above.

5.22 Regarding claim 22 Pettigrew teaches, a method for performing engine baseline modeling (Figure 4 and the descriptive text more specifically reference # 212, 214 & 216 and Col. 1 lines 20-22 "...**aircraft** turbine **engine**..." and Col. 3 lines 55-67 more specifically "...with stored standard performance **baselines** representing **engines** in good condition..."), comprising: storing engine data (Col. 4 line 39 "...a ground computer **database**" and Col. 3 lines 60-61, "...with stored standard performance **baselines** representing engines in good condition" and Col. 2 lines 19-46 more specifically "...engine **diagnostic** data..."); wherein the engine baseline model relates engine performance variables as a function of engine operating conditions (Col. 3 lines 16-2, "REDD values are a measure of the deviation between accepted engine parameter curves representing the functional relationships between various turbine engine performance parameters and **actual** engine parameter curves..." i.e. from actual operating conditions see also Col. 10 lines 35-43 more specifically "The inflight data is a sample of data obtained during routine operation of the aircraft...").

However Pettigrew does not expressly disclose, preprocessing the engine data into a predetermined format and thus creating *Ideal* data; and building an engine baseline model from the preprocessed data.

Morrison substantially teaches or suggests, preprocessing the engine data into a predetermined format; and building an engine baseline model from the preprocessed data (Col. 2 lines 66-67 and Col. 3 lines 1-8 more specifically, "This **pre-processing** procedure is necessary because measured process data often contains missing values, noise and unexpected upsets caused by different sources within the process." Which teaches the functional equivalent of preprocessing data for baseline modeling).

5.23 Regarding claim 23, Pettigrew teaches the functional equivalent of an engine service database (Col. 4 line 39 "...a ground computer **database**" and Col. 3 lines 60-61, "...with stored standard performance **baselines** representing engines in good condition" and Col. 2 lines 19-46 more specifically "...engine **diagnostic** data...").

5.24 Regarding claim 24, see the rejection of claim 3 above.

5.25 Regarding claim 25, see the rejection of claim 4 above.

5.26 Regarding claim 26, see the rejection of claim 5 above.

5.27 Regarding claim 27, see the rejection of claim 6 above.

5.28 Regarding claim 28, see the rejection of claim 7 above.

5.29 Regarding claim 29, Pettigrew teaches evaluation of the engine baseline model (Figure 3 and the descriptive text and Col. 11 lines 8-23).

5.30 Regarding claim 30, the rejection of claim 18 substantially teaches a rejection of this claim with the exception of the following limitation:

"evaluating the performance of the engine baseline model"

Pettigrew teaches evaluation of the engine baseline model (Figure 3 and the descriptive text and Col. 11 lines 8-23).

5.31 Regarding claim 31, see the rejection of claim 23 above.

5.32 Regarding claim 32, see the rejection of claim 3 above.

5.33 Regarding claim 33, see the rejection of claim 4 above.

5.34 Regarding claim 34, see the rejection of claim 6 above.

5.35 Regarding claim 35, see the rejection of claim 3 above.

5.36 Regarding claim 36, see the rejection of claim 30 above.

5.37 Regarding claim 37, see the rejection of claim 6 above.

5.38 Regarding claim 38, see the rejection of claim 7 above.

5.39 Regarding claim 39, see the rejection of claim 18 above, which substantially teaches all of the limitations of independent claim 39 except for the following:

"validating the engine baseline model"

Morrison teaches a method of selecting input variables or a process model, Col. 5 lines 60-67 and Col. 6 lines 1-9, which is functionally the same a performing a *pre-validation* of variables that are then put into a model, further validation of models is well known in the simulation/modeling art, see Col. 1 lines 38-50 of U.S. Patent 5,197,127, "*Typically* simulations are performed to validate analytic models..." thus, it would have been obvious, to an artisan of ordinary skill, at the time of the invention, to have taken the express teachings of Morrison as regards validating the inputs of a model and then derive the express teachings in the instant claims as disclosed.

5.40 Regarding claim 40, the rejection of claim 22 substantially discloses the teachings of the claim with the exception of the teaching concerning, *presenting a user with aircraft data through a user interface.*

Pettigrew discloses, *presenting a user with aircraft data through a user interface* (Figure 2 reference(s) # 120, 118, 118, 122, 116 and the descriptive text and Figure 3 and Col. 10 lines 5-42 and Col. 11 lines 8-58).

5.41 Regarding claim 41, see the rejection of claim 3 above.

5.42 Regarding claim 42, see the rejection of claim 6 above.

5.43 Regarding claim 43, see the rejection of claim 7 above.

5.44 Regarding claim 44, Pettigrew teaches evaluating the performance of the engine baseline model (Figure 3 and the descriptive text and Col. 11 lines 8-23).

5.45 Regarding claim 45, Pettigrew teaches displaying results to a user (Figure 3 and Col. 11 lines 8-23 and Figure 2 #'s 112, 118, 122, 120 and 116 and the descriptive text).

5.46 Regarding claim 46, see the rejection of claim 30 above.

5.47 Regarding claim 47, see the rejection of claim 31 above.

5.48 Regarding claim 48, see the rejection of claim 32 above.

5.49 Regarding claim 49, see the rejection of claim 33 above.

5.50 Regarding claim 50, see the rejection of claim 26 above.

5.51 Regarding claim 51, see the rejection of claim 34 above.

5.52 Regarding claim 52, see the rejection of claim 35 above.

5.53 Regarding claim 53, see the rejection of claim 44 above.

5.54 Regarding claim 54, see the rejection of claim 36 above.

5.55 Regarding claim 55, Pettigrew teaches the functional equivalent of an engine service database (Col. 4 line 39 "...a ground computer **database**" and Col. 3 lines 60-61, "...with stored

standard performance **baselines** representing engines in good condition" and Col. 2 lines 19-46 more specifically "...engine **diagnostic** data...").

5.56 Regarding claim 56, see the rejection of claim 3 above.

5.57 Regarding claim 57, see the rejection of claim 4 above.

5.58 Regarding claim 58, Pettigrew does not expressly disclose validation of baseline models. However, Morrison teaches a method of selecting input variables or a process model, Col. 5 lines 60-67 and Col. 6 lines 1-9, which is functionally the same a performing a *pre-validation* of variables that are then put into a model, further validation of models is well known in the simulation/modeling art, see Col. 1 lines 38-50 of U.S. Patent 5,197,127, "*Typically* simulations are performed to validate analytic models..." thus, it would have been obvious, to an artisan of ordinary skill, at the time of the invention, to have taken the express teachings of Morrison as regards validating the inputs of a model and then derive the express teachings in the instant claims as disclosed.

5.59 Regarding claim 59, see the rejection of claim 7 above.

5.60 Regarding claim 60, see the rejection of claim 36 above.

5.61 Regarding claim 61, see the rejection of claim 37 above.

5.62 Regarding claim 62, see the rejection of claim 38 above.

5.63 Regarding claim 63, see the rejection of claim 39 above.

5.64 Regarding claim 64, see the rejection of claim 40 above.

5.65 Regarding claim 65, see the rejection of claim 41 above.

5.66 Regarding claim 66, see the rejection of claim 42 above.

5.67 Regarding claim 67, see the rejection of claim 43 above.

5.68 Regarding claim 68, see the rejection of claim 44 above.

5.69 Regarding claim 69, see the rejection of claim 45 above.

5.70 Regarding claim 70, see the rejection of claim 1 above.

5.71 Regarding claim 71, Pettigrew teaches the functional equivalent of an engine service database (Col. 4 line 39 "...a ground computer **database**" and Col. 3 lines 60-61, "...with stored standard performance **baselines** representing engines in good condition" and Col. 2 lines 19-46 more specifically "...engine **diagnostic** data...").

5.72 Regarding claim 72, see the rejection of claim 3 above.

5.73 Regarding claim 73, see the rejection of claim 4 above.

5.74 Regarding claim 74, see the rejection of claim 5 above.

5.75 Regarding claim 75, see the rejection of claim 6 above.

5.76 Regarding claim 76, see the rejection of claim 7 above.

5.77 Regarding claim 77, see the rejection of claim 8 above.

5.78 Regarding claim 78, see the rejection of claim 9 above.

5.79 Regarding claim 79, Pettigrew teaches the functional equivalent extraction of data from an engine service database (Col. 4 line 39 "...a ground computer **database**" and Col. 3 lines 60-61, "...with stored standard performance **baselines** representing engines in good condition" and Col. 2 lines 19-46 more specifically "...engine **diagnostic** data...").

5.80 Regarding claim 80, see the rejection of claim 11 above.

5.81 Regarding claim 81, see the rejection of claim 12 above.

5.82 Regarding claim 82, see the rejection of claim 9 above.

5.83 Regarding claim 83, see the rejection of claim 13 above.

5.84 Regarding claim 84, see the rejection of claim 14 above.

5.85 Regarding claim 85, Pettigrew teaches evaluation of the engine baseline model (Figure 3 and the descriptive text and Col. 11 lines 8-23).

5.86 Regarding claim 86, see the rejection of claim 22.

5.87 Regarding claim 87, see the rejection of claim 23.

5.88 Regarding claim 88, see the rejection of claim 24.

5.89 Regarding claim 89, see the rejection of claim 25.

5.90 Regarding claim 90, see the rejection of claim 26.

5.91 Regarding claim 91, see the rejection of claim 27.

5.92 Regarding claim 92, see the rejection of claim 28.

5.93 Regarding claim 93, see the rejection of claim 29.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dwin M. Craig whose telephone number is (571) 272-3710. The examiner can normally be reached on 10:00 - 6:00 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul L. Rodriguez can be reached on (571) 272-3753. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Dwin McTaggart Craig

PAUL RODRIGUEZ
SUPERVISORY PATENT EXAMINER
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1/22/07